

REMARKS

Claims 1-24 are pending in the application. Claims 1, 10, and 18 have been amended. Favorable reconsideration of the application, as amended, is respectfully requested.

I. OBJECTIONS TO CLAIMS 19-21

Applicants note that the Examiner has not rejected claims 19-21 based on the cited art. The Office Action states that these claims will be objected to as being substantial duplicate claims if claims 1, 6-7, 10, and 16 before this Amendment are found allowable. However, Applicants have amended claims 1 and 10 herewith by adding claim limitations as discussed in detail below. Therefore, now claims 19-21 are not substantial duplicate of claims 1 and 10. As such, the claim objection has been overcome.

II. REJECTIONS OF CLAIMS 1-5, 8-15, 17-18, AND 22-24 UNDER 35 U.S.C. § 102(e)

Claims 1-5, 8-15, 17-18, and 22-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,160,571 ("Wang"). Withdrawal of the rejections is respectfully requested for at least the following reasons.

The invention defined in independent claims 1, 10 and 18 relates to a cable modem including an upstream transmitter and a switch. Claims 1, 10 and 18 have been amended to further clarify the aspects of the invention. Specifically, amended independent claims 1, 10 and 18 require that the switch is enabled and disabled (or, activated and deactivated) by a "control signal from the upstream transmitter," and an amplifier "configured to be controlled by the control signal." A specific embodiment of such system according to the invention is illustrated in FIG. 4A. In the specific embodiment shown in FIG. 4A, the switch component 410 is enabled and disabled by a control signal from the upstream transmitter 406 through the control line 412, and the variable amplifier 408 is configured to be controlled by the control signal from the upstream transmitter 406 through the control line 412. See, e.g., page 19, line 8 - page 20, line 3 of the present specification. Thus, no new matter has been introduced by these amendments.

Wang describes a CATV transceiver 12 which includes the AGC 104, and the driver 108. From the office action, it appears that the Examiner views driver 108 (or possibly driver 108 together with bias circuit 106) as the "switch" in claim 1. As shown in FIG. 2, the driver 108 is shut down in response to a PSave signal 110, which is "effectively used as a transmitter enable signal" (Wang, column 6, lines 38-41). So, it appears that the Examiner likely views PSave signal 110 (or the related signal from bias circuit 106) as the "control signal" in independent claims 1, 10 and 18.

However, in the Wang patent, the AGC 104 is controlled by the TX VAGC signal 100, which is different from the PSave signal 110. See, column 6, lines 34-37 of Wang. Since the TX VAGC signal 100 and the PSave signal 110 are supplied by physically separate wires, the AGC 104 is not controlled by the same signal which controls the driver 108. Therefore, the Wang patent cannot be said to teach or suggest one of the claimed features, that is, both a switch component and an amplifier are configured to be controlled by the same control signal, which is recited in independent claims 1, 10 and 18.

At least for the reasons set forth above, the invention defined in independent claims 1, 10 and 18, and their dependent claims is believed to be patentable over Wang. Withdrawal of the rejection is respectfully requested.

III. REJECTION OF CLAIM 16 UNDER 35 U.S.C. § 103(a)

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 4,528,663 ("Citta"). Because Citta does not overcome the deficiencies of Wang, and because claim 16 depends from claim 10, claim 16 is believed to be allowable for at least the same reasons set forth above in connection with claim 10. Applicants believe that claim 16 is allowable over the cited art for at least the following reasons as well.

As a preliminary matter, Applicants respectfully request that the Examiner point out a specific portion of the Citta patent for rejecting claim 16. As discussed in detail below, the Citta patent has nothing to do with a switch and an amplifier used in a cable modem. Rather, in summary, Citta merely suggests reducing information loss by lengthening the time window for transmissions from a subscriber terminal to the headend.

As described at, for example, column 7, lines 1-37 of Citta, referring to Fig. 5, a CATV subscriber terminal varies the upstream transmission window based on the traffic volume of the network. For example, when the traffic is light, the subscriber terminal uses a short window in length initially. As the traffic increases, the Citta terminal lengthens the window to string out subscriber transmissions over a longer period to reduce possible information loss due to message collision.

The Examiner asserts in the Office Action that increasing or decreasing the window size corresponds to "activating the switching component to enable the amplifier." However, this allegedly claimed element is not in fact recited in claim 16. Claim 16 requires "activating only the switch component if the amplifier cannot enable at a sufficient speed." It does not recite activating a switch in order to enable an amplifier.

Further, it is respectfully submitted that nothing in Citta suggests activation of a switch in a specific situation based on an amplifier's condition, i.e., "activating only the switch if the amplifier cannot enable at a sufficient speed." Citta is not concerned with an amplifier and a switch which are included in a cable modem. Rather, Citta describes a window in which upstream transmissions are performed. Those skilled in the art would not view Citta's window as a switch since Citta's window is too remote from a switch in a cable modem in technical similarity. It is respectfully submitted that the cited functionality of the Citta patent would not reasonably suggest the claimed features.

In addition, the Examiner has equated determining the peak period or the off-peak period (the Citta patent) to "determining whether an amplifier in the cable modem can enable at a sufficient speed to not cause data packet collisions" (claim language). However, Applicants respectfully submit that this view is not technically correct since the peak and off-peak periods that Citta describes are caused by various factors, none of which are identified as being related to high-speed switching capability of an amplifier in a cable modem. In fact, nothing in Citta suggests such high-speed switching response of an amplifier in a cable modem, to which claim 16 is pertinent.

In summary, those skilled in the art would not appreciate the above-identified assertions by the Examiner since the Examiner has taken liberties with the teachings of the Citta patent, and the plain meanings of the claim language. Therefore, withdrawal of the rejection is respectfully requested.

IV. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200.

Respectfully submitted,
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Limited Recognition under 37 CFR § 10.9(b)

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Expires: November 6, 2003



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Director of Enrollment and Discipline